ABSTRACT OF THE DISCLOSURE

A cylindrical roller bearing suited for higher rotation speeds is provided, which can control heat generation, wearing, and other problems at contact portions between cylindrical rollers and flange portions. A cylindrical roller bearing is composed of an inner ring having a raceway on an outer circumference thereof, an outer ring having a raceway on an inner circumference thereof, a plurality of cylindrical rollers disposed to roll freely between the raceway of the inner ring and the raceway of the outer ring, flange portions formed on both sides of the raceway of the inner ring, and recess grooves formed between flange surfaces of the flange portions on both sides and the raceway. The flange surfaces are inclined at the same angle from a base end portion to a tip end portion thereof. A radial dimension of chamfers of the cylindrical rollers is smaller than a radial height from the raceway near the recess grooves formed in the races. Curved portions are formed at a portion of the end surfaces of the cylindrical rollers close to the outer circumferential edge of the end surfaces.